

REMARKS/ARGUMENTS

This is in response to the Final Office Action dated January 5, 2009. An RCE has been filed herewith. By present amendment, claims 1-7, 12-18, and 21-23 are pending.

Reconsideration and withdrawal of the rejection are respectfully requested.

As a preliminary matter, without acquiescing to the propriety of the rejection, Applicant has cancelled claims 8-11 and 19-20 so as to render the Section 112, second paragraph rejection moot.

Claim 1 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Stachowiak (U.S. Pat. No. 6,602,608) in view of Medwick (U.S. Pat. No. 6,682,773) and Konda (U.S. Pat. No. 5,254,201).

Claim 1 requires “adhering a flexible protective sheet in non-liquid form to a top surface the low-E coating via an adhesive layer to form a protected coated article, wherein said flexible protective sheet is 1 mm to 3 mm in thickness, and wherein said flexible protective sheet is not water-soluble.”

Claim 1 is not obvious over Stachowiak in view of Medwick and Konda. Although the Office Action still contends that it would have been obvious to one of ordinary skill in the art to modify Stachowiak to contain the coatings taught by Medwick and Konda, Applicant respectfully submits that such a three-way combination (which Applicant contends is improper in any event) would still not meet all the features of claim 1.

Stachowiak is directed toward a coated article with an improved barrier layer structure and method of making the same. Stachowiak does not disclose or suggest a removable coating added to the top of the substrate to protect the substrate prior to heat treatment. Further, even if Stachowiak were modified in view of Medwick, the alleged combination would not meet all the

features of claim 1 for the reasons discussed in detail, below. Further modification of Stachowiak/Medwick in view of Konda would *still* fail to meet all the features of claim 1, and as such, the alleged combination, even if made, does not render obvious claim 1.

Medwick is directed toward spraying a thin, liquid, water-soluble layer on a substrate that can be removed by a liquid solvent/aqueous washing. (Col. 7, lines 36-41 of Medwick). Medwick specifically discloses that the coating *is* water-soluble, and that it is applied in liquid form and then cured or heated to dry it. Medwick seeks to minimize the physical thickness of the protective coating, and in the most preferred embodiment the thickness is a mere 1 to 2 micrometers. The coating can be removed by washing with water. (Col. 7, lines 39-41 of Medwick). Medwick teaches that removal by peeling is inefficient and an unsatisfactory method of removal. Removal via peeling was regarded as a *problem* with the current state of the art at the time Medwick was filed. (Col. 2, lines 17-27 of Medwick). Therefore, the coating of Medwick cannot protect the substrate from abrasion by brushes, etc, during washing, because if it had not been washed off prior to washing, it would be washed off during the washing process, leaving the substrate vulnerable. The invention of claim 1 can stay on to further protect the substrate during washing because it is *not* water soluble. Therefore, because the coating of Medwick can be washed off with water, Medwick cannot meet this limitation.

Further, the coating of claim 1 is applied in *non-liquid* form. As soon as the coating is applied, it protects. Medwick *is* applied in liquid form, preferably via spraying, and thus must be dried or cured before acting as a protective coating. (Col. 9, lines 33-37 of Medwick). Claim 1 eliminates this time-consuming step by rendering it unnecessary, because the coating is applied in a *non-liquid* form. There is nothing in the cited prior art indicating that the general state of the art is such that a method that eliminates a time consuming step was known.

Additionally, Medwick seeks to minimize the physical thickness of the protective coating, and the most preferred thickness is a mere 1 to 2 micrometers. Claim 1, on the other hand, requires a layer that is 1–3 mm thick (1000–3000 micrometers). The non-liquid, flexible protective coating of claim 1 is thus *substantially* thicker than the coating taught by Medwick. It would not have been obvious to one of ordinary skill in the art to modify Medwick to make it *thicker*, when Medwick's specification clearly states that the preferable thickness is 250 micrometers, the *more* preferable thickness is up to 25 micrometers, even more preferably up to 10 micrometers, still even more preferably up to about 2 micrometers, and the most preferable thickness is 1 to 2 micrometers. (Col. 10, lines 27-34 of Medwick). Therefore, it would *not* have been obvious to modify Medwick to have the features of claim 1 because Medwick teaches away from such modification.

Moreover, the protective coating of claim 1 is removed by being peeled off. Medwick specifically states that having to peel off the coating is a disadvantage because said peeling off requires considerable time, and also because the coating also would have to be disposed of. (Col. 2, lines 11-23 of Medwick). Medwick also states that peeling off the coating can leave small patches behind, which would increase time and labor costs and thus decrease efficiency. (Col. 2, lines 24-27 of Medwick). In contrast, claim 1 calls for a flexible protective coating that is removed by being peeled off. The modification of Stachowiak in view of Medwick does not render those features obvious because (1) Medwick does not meet those features of claim 1, and (2) the general state of the art at the time of Medwick was that peeling off a protective coating was inefficient and potentially ineffective; therefore the combination of Stachowiak and Medwick does not render obvious these features of claim 1.

Modification of Stachowiak/Medwick in view of Konda does not cure the fundamental deficiencies of the alleged combination. Firstly, Konda is directed to a method of stripping off a wafer-protective sheet in which the amount of the static electricity generated is 500 V or less. Konda is thus a non-analogous art to Stachowiak and Medwick. For that reason, neither Stachowiak nor Medwick would ever be combined with Konda by one of ordinary skill in the art. Further, even if the coating of Medwick were modified in view of the teachings of Konda and then used as a protective coating on the article taught by Stachowiak, the alleged combination would still not meet all the features of claim 1. The protective "coating" taught by Konda comprises a flexible substrate bonded to the back of a protective sheet through a pressure-sensitive adhesive layer. (Col. 3, lines 21-22 and 29-32 of Konda). The thickness of the flexible substrate taught by Konda is still only 20-200 μm , and the "protective sheet" is 100 μm , and is therefore, at approximately 120-300 μm , much thinner than the coating of claim 1. (Col. 3, lines 27-28; col.4, lines 28-30; and Figure 4 [elements 1 and 3] of Konda). So even if Stachowiak/Medwick were modified in view of Konda, the coating would still not meet this limitation of claim 1. Therefore, the alleged 3-way combination, even if made, cannot render obvious claim 1.

Furthermore, Applicant respectfully submits that the modification of Medwick in view of Konda is improper in any event, for at least the following reasons.

Konda teaches a coating that is in its entirety most preferably 120-300 μm thick (20-200 μm for the flexible plastic film, and 100 μm for the protective sheet), and that has excellent water resistance (Col. 3, lines 21-22 and 27-28 of Konda). Medwick discloses that the most preferred thickness of *its* coating is 1-2 μm , and that the preferred method for removal is by aqueous washing (Col. 7, lines 39-41 of Medwick). Therefore, Medwick would not be modified in view

of Konda at least because (1) Medwick seeks to have an extremely thin coating, whereas Konda teaches a coating that is substantially thicker; and (2) because Medwick's coating, which is water-soluble and is removed by aqueous washing, would not be modified to have "excellent water resistance" because then the coating would not be able to be removed by aqueous washing. Although Medwick also discloses that the protective coating can also potentially be removed by combustion, Konda is directed toward protecting a semiconductor. A coating with the purpose of protecting a semiconductor would never be burned off by one of ordinary skill in the art, because the combustion would contaminate and ruin the semiconductor. Furthermore, Medwick specifically teaches that physically peeling off protective coatings is inefficient and potentially ineffective (when they break), and seeks to solve that problem by making the coatings water soluble or able to be burned off. One of ordinary skill in the art would never modify Medwick to include a feature that Medwick has attempted to eliminate for purposes of efficiency. If Medwick were modified to contain a flexible plastic coating that could be peeled off, as taught by Konda, the function and purpose of Medwick would be destroyed.

For the foregoing reasons, the three-way combination of Stachowiak, Medwick, and Konda is improper. Further, even if the combination were proper (although Applicant respectfully submits it is not), it still would not meet all of the features of claim 1. Therefore, the combination cannot render obvious claim 1.

Claim 12 also requires "adhering a flexible protective sheet in non-liquid form to a top surface the low-E coating via an adhesive layer to form a protected coated article, wherein said flexible protective sheet is 1 mm to 3 mm in thickness, and wherein said flexible protective sheet is not water-soluble." The cited art fails to disclose or suggest this.

Claim 21 further requires the step of “adhering the flexible protective sheet in non-liquid form to the top surface of the low-E coating comprises applying the flexible protective coating to the surface when the surface is at a temperature of about 60-120 degrees C.” Medwick would never be modified to arrive at claim 21 because Medwick specifically discloses that the (liquid) coating is applied at room temperature (see “Examples” of Medwick). If the temperature of the substrate in Medwick were elevated prior to application of the coating, the coating of Medwick would be adversely affected, thus potentially rendering it inoperable for its intended purpose of protecting the glass substrate.

Claim 21 further requires the step of “adhering the flexible protective sheet in non-liquid form to the top surface of the low-E coating comprises applying the flexible protective coating to the surface when the surface is at a temperature of about 90-120 degrees C.” The cited art fails to disclose or suggest this.

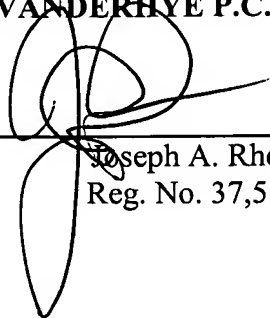
In view of the foregoing, Applicant respectfully submits that all claims are in condition for allowance. Reconsideration and withdrawal of the rejection are earnestly solicited. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

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Respectfully submitted,

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